Nebraska Information Technology Commission

Community Technology Fund Projects 2000-2001

Volunteers make a final check of equipment before the Brainard Technology Center's open house. The Brainard Technology Center is one of the projects funded by the 2001 Community Technology Fund.

Grants support technology development

Since September 1998, 40 projects have been awarded a total of $834,700 from the Nebraska Information Technology Commission's Community Technology Fund. The projects funded demonstrate how information technology is being used to improve efficiency and enhance economic development. Grant projects range from a joint library automation system which saved three libraries thousands of dollars to a technology business incubator. This report highlights the projects funded from the 2000 and 2001 rounds of the Community Technology Fund and shares lessons that can be learned from these projects.

2000 Community Technology Fund Projects

Project: ONE Library

Entity: Norfolk Public Library, Columbus Public Library, Northeast Nebraska Community College Library/Resource Center

Award: $ 25,000

Norfolk Public Library, Columbus Public Library, and Northeast Community College Library/Resource Center formed a consortium (ONE Library) to jointly purchase and share a library automation system. ONE Library (http://www.onelibraryne.org/) allows access to the informational holdings (online databases, material collections, full-text journals, community resources, special papers, etc.) of the consortium members. Using the Internet, patrons can access the holdings of all member libraries. Patrons are enthusiastic about the new system. In addition to basic bibliographic information, patrons can view book jacket covers, book summaries, table of contents, and short author biographies.

The consortium saved thousands of dollars over the cost of purchasing separate systems. The cost of the software for three libraries sharing one license was almost one-third less than the cost of three libraries purchasing software separately. Columbus and Norfolk will each also save about $7,000 per year in service maintenance.

Lessons Learned:

The timetable we set was too aggressive. While we were able to review automation vendors and to prepare and send RFP's according to the schedule, the actual RFP review took a couple of months longer than expected. Not only did we review the RFP's, but we took site visits to two college and two public libraries to talk to librarians using the products. We also called a variety of libraries on each vendor's client list to gather responses about service and the conversion process.

Our advice for others doing a project of this type is to allow for plenty of time to study competing vendors' products. Even though this put us behind schedule, we believe we were able to determine the best product for our needs by slowing down this process.

If we were to do anything differently, we might cull the initial list of vendors before the RFP process. We were fairly certain that a number of vendors would not be able to meet our specifications, but we sent them RFP's anyway so that we could not be accused of unfairness during the process.

Mapping the hundreds of policies (circulation, materials, check out periods, item types, etc.) took weeks. It involved a lot of face to face meetings. This was well worth our time, because we were able to head off many problems by "learning" the system even before we had it in house.

Even with all the mapping work done, when we actually got the new, shared database in house, we found errors (some ours, some SIRSI's). The migration went smoothly. People just need to know that no database migration is completely trouble free or mistake free.

Project: Public Internet Access Enhancement

Entity: City of Kearney

Award: $19,380

Since 1994, the Technology Learning Center in the Kearney Public Library and Information Center has provided computer and Internet training as well as public access to computers. Eleven new computers were purchased for the Technology Learning Center. The Technology Learning Center averages over 50 patrons per day, primarily for Internet access.

Lessons Learned:

Even though the equipment is brand new and some of the software is installed, spend time on each machine and test each one thoroughly. Create a team to work together on installing the equipment.

Project: Public Library System Web Catalog

Entity: Public Library System, Holdrege

Award: $9,218

The Public Library System of Holdrege has published its catalog on the World Wide Web (http://www.socentral.lib.ne.us.) The Public Library System of Holdrege, Nebraska serves 14,533 citizens and includes the Holdrege Public Library, the Phelps County Library, the South Central Regional Library and the Holdrege Interlibrary Loan Center (HILL). The new Web site and catalog allow customers with Internet access to check on the availability of library materials nearly twenty-four hours a day and seven days a week. In the first six months of operation, the Web catalog averaged over 155 site hits and generated an average of over 40 hold requests per month.

Lessons Learned:

The main thing we would do differently would be to choose to budget for and pay for a .org top-level domain name. If we had done this we would have moved much more rapidly from the point of having our Web server/Web catalog software operations to promotion and real-time use by library customers.

If we were putting this project together today, we would be more modest in our estimates of the number of Web sites we can include in our catalog in one year. Our organization lacks expertise in the cataloguing of Web resources. This, combined with the rapid pace with which the cataloging standards and tools (namely OCLC's CORC) are evolving made it difficult for us to improve our expertise quickly enough to reach our goal of having 200 Web sites catalogued by the end of the project's 12th month. In light of our slow pace of cataloguing and the explosive growth in the number of Web resources, the advisability of including links to Web resources in our catalog needs scrutiny.

Project: Connecting Nebraska E-Business Project

Entities: University of Nebraska Cooperative Extension and Center for Rural Community Revitalization, the AIM Institute, and the Rural Development Commission

Award: $52,000

The Applied Information Management (AIM) Institute, University of Nebraska Cooperative Extension, and the University of Nebraska-Lincoln's Center for Applied Rural Innovation (CARI) cooperatively addressed the information technology needs of rural Nebraska businesses. The report *Nebraska Business Use of Information Technology* (available at http://www.aimlink.org/pdf/nuseofit.pdf) examined how rural Nebraska businesses are using information technology. The report found that Nebraska business owners and managers projected rapid growth in the use of information technology in their businesses. The report concluded:

> "From an economic development perspective, it is absolutely critical that Nebraska businesses and entrepreneurs have the access and knowledge to use information technology to remain competitive and expand market opportunities."

This project also provided training to community members and business people. The Nebraska Electronic Main Street e-commerce training program was offered at 26 sites. Twenty-seven sites hosted the Master Navigator Internet training program. An advanced e-commerce curriculum was also developed.

Lessons Learned:

The research has provided much information on the needs and expectations of rural businesses throughout Nebraska. The research and the volume of requests for both Master Navigator and Nebraska Electronic Main Street training have reinforced the increasing awareness of opportunities for rural residents in the use of technology.

Project: Web Parent Teacher Project

Entity: Elmwood-Murdock Public Schools

Award: $22,270.00

The Web Parent-Teacher Program created a volunteer position for each elementary classroom called a "Web parent", similar to the traditional "room parent", to assist the classroom teacher with creating a Web page for that classroom and updating the Web page throughout the school year. The program trained volunteer Web parents and classroom teachers on Web page development skills and Internet skills. A bi-monthly online newsletter publicized the work being done at the school and encouraged use of the Internet. Elementary schools students worked with high school students to sell popcorn online as a fundraiser.

Lessons Learned:

Be sure you have an adequate Internet connection and good computers to work with.

Look at the school Web site and determine whether if it needs to be updated or redesigned.

Our program had to go through a study of copyright law to establish a clear Web content policy that protected the school from liability. This is not an area in which any of us had experience. We would be glad to share our policy as we learned from others before us.

We had to train the teachers and the Web parents on what was and was not OK to put on the Web, in regards to child safety issues and copyright liability.

We had to establish a process to get the Web content developed by the Web parent partners to the live Web site with a review process to ensure that the content adhered to the newly developed Web content policies. We established “Web monitors” to review Web pages.

A surprising number of parents do not want their child’s picture or schoolwork displayed on the Web. This can create complications when there is a group picture. One method to overcome this is to put a smiley face over the face of a child whose picture is not authorized.

Recruit more Web parents than you need. Alternates can step in if a Web parent is unable to continue participating in the project.

Plan for the project manager to be both a manager and a cheerleader.

A shorter training period for volunteers would work better than two classes a month for three months.

2001 Community Technology Fund Projects

Project: Aurora Technology Center (formerly the Aurora Technology Business Incubator)

Entity: City of Aurora

Award: $25,000

The City of Aurora has developed a technology business incubator. The renovated facility offers broadband Internet access, a technology training center, and conference room as well as office space. The Aurora Technology Center provides technology and office support, technical consultation, professional consultation, and education and networking experiences. The technology center currently has five clients and several prospective clients.

Lessons Learned:

The most important advice for others when exploring taking on a similar project is the absolute necessity of community involvement. Without the support of local economic development and business associations and groups, this type of project is not going to succeed. Community support is provided in two ways—support for the project through community organization members, as well as financial and donation support. The Aurora Technology Center is supported by the major community organizations involved in economic development. In addition, the technology center received $50,000 from the local Farr Trust and an anonymous donor for outside building renovation and $160,000 in furnishings from PEAR Commercial Interiors in Denver, Colorado due to the contacts and support of a local businessman. These are just examples of the support received. However, they are quite substantial.

The Aurora Technology Center has learned several important lessons that would also prove to be good advice. For those clients that have gone through the application process, including interviews and a business plan, that actual commitment to a lease and the cost is a stumbling block that can take one or more months to eliminate. The Aurora Technology Center is looking at simplifying the lease agreement, as it appears daunting. In addition, finding a workable pricing and alternative payment structure for clients that also serves the need for the technology center's cash flow takes time and experimentation. Every situation is different.

The use of different marketing techniques and finding the appropriate target markets has been an experience that is ongoing. This is possibly an area that could be documented both quantitatively and qualitatively for future reference by other entities.

Project: Creating a Common Framework for Integrating Surface Water Data

Entity: Lower Platte North Natural Resources District

Award: $24,800

The Lower Platte North Natural Resources District is facilitating inter-agency collaboration and multipurpose use of water data by developing a standardized database of surface water features. Map digitizing and pre-conflation have been completed by the Nebraska Department of Natural Resources and UNL Conservation and Survey. Conflation and post-conflation is being performed by the U.S. Geological Survey and will be completed by August 16, 2002. There is is some progress in expanding this project statewide. A second project has started covering Maple Creek in the Lower Elkhorn NRD. Also, the workshare agreement between the Nebraska Department of Natural Resources and the U.S. Geological Survey will cover five additional watersheds.

Lessons Learned:

There is a steep learning curve for the creation of these databases.

Project: Taking Resources and Information Online (TRIO)

Entites: Bruun Memorial Public Library of Humboldt, the Humboldt Public School Library-Media Center, and the Table Rock-Steinauer School Library-Media Center

Award: $18,600

The Bruun Memorial Public Library of Humboldt, the Humboldt Public School Library-Media Center, and the Table Rock-Steinauer School Library-Media Center formed a consortium to jointly purchase and share a library automation system. The Bruun Memorial Public Library catalog can be searched online at http://www.ci.humboldt.ne.us/Bruun%20Home%20Page.htm and the Humboldt Public School Library-Media Center catalog is accessible online from the school Web site (http://www.humboldt.esu6.org/). A link to the Table Rock-Steinauer School Library-Media Center is unavailable. Project partners are pleased with the project and the cooperation that the project has fostered.

Lessons Learned:

From the time of the initial development of the concept of this project, there has been substantial growth in the local understanding of information technology, the availability of services, and the compatability (or the lack of compatibility) of networks/technologies.

Advice:
1. When looking at unification/consolidation of school sites, such a project is a great trigger for positive action.

2. The steps taken to elevate/standardize the library holdings has enhanced the "community/team" concept that the Friends of the Library have been trying to foster and if this is what it takes to get that to the next level, we would recommend others to undertake such a project.

Project: Technology-Based Education for Health Occupations

Entity: Southeast Community College

Award: $18,195

Southeast Community College has developed 12 radiologic technology courses and 5 surgical technology courses for online use to address the shortage of medical technicians in rural Nebraska. Sixteen of seventeen Surgical Technology students have completed the distance program. Fifteen of 15 Radiologic Technology students are continuing the program by distance. The overall employment rate of program graduates in rural hospitals is 87%.

Lessons Learned:

About students. Many on-line students are in need of basic computer training. About half are of non-traditional age and have little or no experience with computers. Those who do have some experience are not always proficient. Because of this, faculty realized a need for a technology orientation and for additional online help.

About faculty. Faculty may be surprised by the steep learning curve and the breadth of software knowledge required for online course development. Even the distance environment itself may be a psychological barrier for extroverted faculty. More screening needs to be developed to find out if teachers are really suited to "go the distance."

About systemic change. Working with established systems, including admissions, financial aid, and others may be difficult in the online environment. Everyone has to be flexible enough to develop solutions. Faculty need to find ways to keep staff up-to-date so they can answer students' questions accurately.

About technology. Portable technology with CD ROM capability makes online course development and online student communication possible. Without it, the model would not work.

About online teaching and learning. Limited enrollment in online courses is best. Students can interact in smaller groups and benefit more. Groups numbering over 15 will have a hard time communicating adequately during chat conferences. When teachers get too busy with multiple classes to host chat rooms, another option is having specific "office hours" during which students can ask questions of the instructor.

Review activities are beneficial for students. Material should mirror the quality of real-time classroom activities. It should be presented in an interesting, varied format to avoid monotony for students.

Student evaluations yielded these insights: Online is hard, but doable. Students say they learn a lot. They would prefer a classroom, but distance is their only choice and they are grateful for it. Online is better quality than broadcast. Connectivity in rural areas is often not digital.

Project: Senior Connection

Entity: Beatrice Public Library

Award: $22,932

Status: Complete

The Beatrice Public Library has partnered with the Blue Rivers Area Agency on Aging to provide instruction to senior citizens on the use of the Internet. Peer volunteers have trained nearly 100 users at the Senior Center on using e-mail and other Internet applications. Several senior citizens had computers at home but needed help learning how to use them. Others have purchased new computers since receiving training. The Senior Center had a card party as a fundraiser for the ADSL service and raised enough money to pay for two years worth of service.

Lessons Learned:

In terms of senior citizens, both the library and the senior center were focused on the use of the equipment in their respective facilities. We did not anticipate that many senior citizens had computers at home that they were not using at all or not using for searching. We did not build in home use into any aspect of our plans, and it has been much more significant than we expected. We also did not anticipate this project's encouragement for senior citizens to purchase their own computers. Staff at the senior center have had reports from several of their users indicating that they are buying computers for Christmas!

The library did not expect interested senior citizens to want repeated training sessions, rather than one more extensive lesson in searching skills. The training at the senior center quickly expanded beyond e-mail so some of the expected training at the library has actually been handled at the senior center.

We have not seen that many of our users moving between locations. However, we do have a closer relationship between the library and the senior center. Both groups have found that you can't assume that people know about your services and that a successful project has to be promoted again and again.

Project: Telehealth

Entity: Nebraska Commission for the Deaf and Hard of Hearing

Award: $25,000

Status: A three-month extension has been granted.

Over the past three years, the Nebraska Commission for the Deaf and Hard of Hearing has worked to expand mental health service to deaf and hard of hearing people through the use of video conferencing mediums. The Commission has been providing counseling services via Telehealth to consumers by Licensed Mental Health Practitioners since October 2001 as part of a pilot study in conjunction with the University of Arkansas Rehabilitation Research and Training Center for Persons who are Deaf and Hard of Hearing. The Commission has held three training seminars via video conferencing and has produced a training video on the use of telehealth for mental health counseling. The Commission has experienced barriers in establishing a site for telehealth services in the Panhandle due to the connectivity cost.

Lessons Learned:

Over the past three years, the Nebraska Commission for the Deaf and Hard of Hearing has made assiduous efforts to expand mental health services to deaf and hard of hearing people in the Panhandle through the use of videoconferencing mediums. The Nebraska Commission of the Deaf and Hard of Hearing is aware that only a few states have modeled this type of service to the deaf and hard of hearing communities. The Nebraska Commission for the Deaf and Hard of Hearing has experienced barriers in establishing a site for our telehealth service in the Panhandle due to connectivity cost. Our advice to others undertaking a similar project would be to dedicate staff to focus entirely on the telehealth project as well as to have a broader commitment of time needed to establish the service. If the Nebraska Commission for the Deaf and Hard of Hearing could do anything differently, we would have received prior agreements with Medicaid and Medicare so reimbursement would have captured the cost of providing the transmission fees for providing this service.

Project: Omaha Tribe Online Information Technology Plan

Entity: Omaha Tribe of Nebraska

Award: $25,000

The Omaha Tribe of Nebraska and its consultant have developed an information technology plan, including a needs assessment and problem identification; recommendations regarding telecommunications resources; recommendations regarding hardware and software; an implementation timeline; IT budget; identification of funding resources; and a review of current federal and state legislation.

The plan includes four broad recommendations:

1. Establish a tribal management information systems department.
2. Require computer applications training for current staff.
3. Develop and maintain departmental enterprise specific databases.
4. Develop tribal member IT expertise for career development.

Lessons Learned:

A particular need must be documented with verifiable data using consultants having a high degree of expertise. This type of study provides information that can be used for grant applications to fund a particular project.

Project: Brainard Community Technology Center

Entity: Village of Brainard

Award: $18,495

The Village of Brainard has developed a community technology center, offering a variety of technology classes on making address labels, genealogy, surfing the Internet, children's Web sites, mapping out trips, and using e-Bay. Community members have volunteered 440 hours at the community technology center over the past six months. Volunteers are also using technology to preserve the heritage, history, and resources of the area. Over 350 family stories have been collected for the Q125 history book. A Web site (www.brainardnebraska.com) has been developed for the community. The community is also using information technology to improve record keeping and to access information. The Village clerk is using e-mail to correspond with other village clerks. The Brainard Volunteer Fire Department has purchased a computer for record keeping.

Lessons Learned:

It takes lots of time and you have to be willing to donate many hours to the needs of other people. You are continuously learning new skills and you are challenged to keep up with technology.

Project: KCH Clinic Integrated Practice Management and Electronic Medical Record Project

Entity: Kimball County Hospital Clinic

Award: $25,000

The Kimball County Hospital Clinic is implementing an electronic medical record system to improve patient care and increase efficiency. Even though the capability to scan patient records has only been available since mid-November, it is apparent that this will reduce personnel costs in the long-term and improve patient care. Providers estimate they are seeing 90% to 95% of their patients with the new system. Transcription costs have been drastically reduced. Patients report reduced wait times.

Lessons Learned: Either ask for a live demo that you could use at your site with test patients to really get a feel for how the system works or spend a week with a facility that uses the system. Getting some training in the database that the system uses would also be helpful.

Project: Greeley Learning and Technology Center

Entity: Village of Greeley

Award: $23,500

In cooperation with Greeley Public Schools, the Village of Greeley has established a Learning and Technology Center in the school library to provide accessible, up-to-date resources, training and education to residents of Greeley County. Users range from pre-school to retired people.

Lessons Learned: The reported usage of the library by the librarian indicates that our adult citizens in the Greeley community have a need for the services this project is providing. We anticipate the need will grow as people share their experiences at the Greeley Public Schools Library with others that we are providing valuable services within the Greeley community.

We would advise other communities such as ours to not hesitate in pursuing similar goals. We have learned that a great deal of effort needs to be expended on communication with the public library through advertising and conducting activities to bring people into the school library for the project to succeed.

Project: City of Lincoln Technology Infrastructure Audit

Entity: City of Lincoln

Award: $23,500

The City of Lincoln and its contracted evaluator completed a technology audit. The results were presented to the Mayor's Technology Council on April 10, 2002. The Technology Council is in the process of utilizing the results of the technology audit in combination with committee team reports to develop a coordinated community-wide technology infrastructure plan of action. The assessment is available at http://www.ci.lincoln.ne.us/city/mayor/tech/pdf/techrprt.pdf .

Three key findings resulted from the audit:

1. Essential elements are in place in Lincoln to make the community successful in the New Economy.

2. The need exists for a unified approach to develop and implement initiatives to make Lincoln competitive in the New Economy.

3. None of the benchmark communities have a clear competitive advantage over Lincoln.

Lessons Learned: The City has gained a new awareness of its many technology assets and now has documentation to dispel a number of beliefs which may have been true in the past, but are not currently true. These include the belief that Lincoln is technologically limited and because of this cannot attract new technology-related businesses to the area. In fact, Lincoln is comparable to other cities of its size and composition and can offer many advantages to technology-related businesses. Due to being located near major long haul fiber optic cables, possessing excellent educational institutions and a high quality of life, Lincoln has much to offer to new businesses. At the same time, the project has allowed the City to recognize the need for increased coordination of efforts to attract technology-related businesses, the need to better utilize our existing assets, in particular, the University and the Technology Center, and to create avenues for enhanced partnerships in the community to be able to fully realize the benefits of the New Economy.

The City has found the technology audit to be very beneficial and would encourage other communities to conduct a similar audit to help them develop strategies to more fully benefit from the New Economy.

Project: From Plowshares to PCs: Creating a Learning Community in South Central Nebraska

Entities: Central Community College--Holdrege Center and the University of Nebraska Cooperative Extension--Phelps/Gosper Counties

Award: $23,500

Central Community College--Holdrege Center and the University of Nebraska Cooperative Extension--Phelps/Gosper Counties surveyed businesses regarding their information technology training needs and have delivered five information technology training classes to 67 participants in South Central Nebraska. Nine more classes are scheduled from June 2002 until December 2002. A mobile computer lab purchased with grant funds has facilitated the delivery of information technology training in the area.

Lessons Learned: To date, much ahs been learned regarding development of this project. Developing the promotional/survey brochure has taken considerable more time than was originally expected. Purchasing and preparing the computers and equipment for the classes has involved much more work than was originally planned. And finally, starting classes has taken more time than was predicted. In undertaking a similar future project, more time for promotional and preparation responsibilities should be strongly considered.